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ownership in the firm with a significant duration for the provision of liquidity in the firm's market at any particular point in time, since this would generate a poor match between the characteristics of a contributor's contribution to the firm and the characteristics of the equity it is awarded for them. Thus to be both viable in the long term and to effectively match the characteristics of contributor contributions to the value of the firm to those of the equity they are awarded, an equity award rule for a CTC in which individual contributor transactions contribute to the value of the firm over a relatively short horizon, but the sequence of such transactions contribute to the firm on an on-going basis, equity with a relatively limited duration must be awarded on an on-going basis. The ability to do so is a novel benefit of the invention disclosed here.

REMARKS

Any fees that may be due in connection with filing this paper, or during the entire pendency of this application, may be charged to Deposit Account No. 50-1213.

The amendments to the figures correct typographical errors. The amendments to the specification presented herein correct obvious typographical errors, provide consistency of usage, and produce greater grammatical clarity. For example, many of the changes to the specification are for the purpose of consistent usage of "CTCs" as the plural form of "CTC" (eliminating the occasional use of "CTC's" as the plural form).

More particularly, the amendment to the paragraphs beginning on page 5, lines 14-15, page 6 lines 3-7 and lines 10-17 corrects figure labels and finds basis in the figures. The amendment to the paragraph beginning on page 16, lines 6-20, corrects a figure item label and finds basis in Figure 6. The amendment to the paragraph beginning on page 53, line 9 to page 54, line 2, removes the inadvertently typed phrases "the top panel of" and "the bottom panel of" to produce grammatical clarity, corrects figure labels, and finds basis in Figures 9A-B. The amendment to the paragraphs beginning on page 67, line 8, to page 68, line 10, corrects figure labels and finds basis in Figures 15A-C and 16A-C. The amendment to the paragraphs beginning on page 72, line 8, to page 73, line 13, removes the phrases "the middle panel of" and "the bottom panel of" to produce grammatical clarity and to be consistent with the drawing figures, and finds basis in Figures 18A-C and 19A-C. The amendment to the paragraphs beginning on page 75, line 18, through page 76, line 19, corrects figure labels and finds basis in Figures 20A-B. The amendments to

the paragraphs beginning on page 79, lines 3-13, corrects figure labels and finds basis in Figures 21A-B. No new matter has been added.

Included as an attachment is a marked-up version of the specification paragraphs and claims that are being amended, per 37 CFR §1.121.

* * *

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Applicant: B. Johnson
Serial No.: 09/835,209
Filed: April 13, 2001
For: *DYNAMIC DETERMINATION OF
OWNERSHIP INTEREST BASED ON
CONTRIBUTION*
Art Unit: 2161
Examiner: Unassigned

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ATTACHMENT TO THE PRELIMINARY AMENDMENT
MARKED-UP PARAGRAPHS (37 C.F.R. § 1.121)

IN THE SPECIFICATION

Please amend the specification as follows:

Please amend the paragraph beginning on page 5, lines 14-15, as follows:

[Figure 9 is a graph] Figures 9A-B are graphs that [shows] show an initial, exemplary equity class size award rule for a performance metric that includes a timing factor.

Please amend the paragraphs beginning on page 6, lines 3-7, as follows:

[Figure 15 is] Figures 15A-C are a series of graphs that show how the percentage ownership of a CTC equity class would be allocated over the first ten periods of the life of the class.

[Figure 16 is] Figures 16A-C are a series of graphs that show how the percentage ownership of a CTC equity class would be allocated with a delayed entry of Contributor 3 into the equity allocation rules.

Please amend the paragraphs beginning on page 6, lines 10-17, as follows:

[Figure 18 is] Figures 18A-C are a series of graphs that show the effect of percentage dilution rate on equity reallocation.

[Figure 19 is] Figures 19A-C are a series of graphs that [shows] show equity reallocation for a CTC equity class of fixed size.

[Figure 20] Figures 20A-B are graphs that show the percentage of ownership awarded to new contributors under an absolute award equity rule.

[Figure 21 is a graph] Figures 21A-B are graphs that [shows] show an implementation of joint equity class size award and equity allocation rules.

Please amend the paragraph at page 19, lines 6-17, as follows:

Finally, unlike other ownership award structures, under the DCEAS described herein the amount and type of ownership awarded to individual contributors can be determined based on the contributor's contribution to the firm relative to that of the firm's other contributors. For example, the type and aggregate amount of ownership awarded to the set of contributors of a CTC can be scaled to match the magnitude of the actual overall contribution that CTC makes to the firm relative to the actual contribution made by the other CTCs [CTC's] of the DCEAS. This aggregate equity award for a CTC can then be allocated to the individual contributors of the CTC based on their actual, relative contribution to the CTC and firm. In contrast, under existing structures how ownership will be awarded to individual contributors must be specified in advance on the basis of forecasted values of the contributor's likely relative contribution to the value of the firm in the future.

Please amend the paragraphs at page 20, lines 3-20, as follows:

A DCEAS in accordance with the invention identifies the categories of products or services, contributor types, and contributor relationship types, hereafter referred to as contributor transaction classes (CTC), on which the DCEAS is based. The nature and number of CTCs [CTC's] chosen is a flexible design parameter of the DCEAS. Generally, the appropriate selection of CTCs [CTC's] will reflect a trade-off between the perceived heterogeneity of the contribution of each of the prospective CTCs [CTC's] to the firm's value and the additional complexity associated with a greater diversity of CTCs [CTC's].

In particular, it may be viewed as important to create a specific additional CTC if the contribution to the value of the firm made by the type of contributor transaction in question is believed to require an equity award of unique size or unique characteristics, such as rate of dilution, control rights, or dividend or priority structure.

Sample product or service types include products in product line X or services offered by division Y. Sample contributor type categories include low, medium and high volume contributors and strategic partners. Sample business relationship types include spot purchases and long term contracts. Sample CTCs [CTC's] include purchases of products in product line X by strategic contributors under long term contracts, and purchases of services offered by division Y by contributors that purchase less than \$100,000 of such services per year.

Please amend the paragraph beginning on page 21, line 17, through page 22, line 5, as follows:

These characteristics of the equity award rules of the CTCs of a DCEAS allow the amount and type of both the aggregate equity awards to specific CTCs [CTC's] and of the allocation of these aggregate awards made to the individual contributors within a CTC to be determined on a relative and dynamic basis over time. Specifically, individual contributors receive equity awards based on the magnitude of their contribution to each CTC relative to that of other contributors of that CTC. Similarly, the aggregate amount of equity awarded to specific CTCs [CTC's] may be specified relative to, or as a function of, the aggregate amount of equity awarded to one or more other CTCs [CTC's], to the nature and volume of the firm's overall business, or to other relevant business conditions. Finally, the characteristics of the equity awarded for specific CTCs, including its rate of dilution, control rights, dividends, and priority relative to the firm's other classes of securities can also be tailored to the CTC.

Please amend the paragraphs beginning on page 22, line 12, through page 23, line 19, as follows:

Example 1

Assume that firm A is a market-making firm that trades two types of goods, X and Y. Assume that the firm has defined two CTCs, [CTC's,] one for trades of good X and the

other for trades of good Y, and has chosen trading volume, which may be measured either by dollar volume or units traded, as its performance metric for each CTC. Sample equity award rules for each CTC may specify that the CTC will be allocated a defined percentage of the ownership of the firm, such as 10% (comprising the aggregate equity award for the CTC), and must also specify a procedure for allocating this aggregate amount of equity to the individual contributors of the CTC, for example based on the proportion of the total trading volume in the CTC which they contribute. Alternatively, the equity award rules for the two classes may specify a procedure for dynamically allocating a defined total percentage ownership of the firm, such as 20%, among the two CTCs based, for example, on the relative trading volumes in each CTC over time, as measured by their respective performance metrics. As a third alternative, the equity award rules for either or both CTCs may specify the size of the class as a dynamic function of the firm's overall scale, profitability, or other relevant variables.

Example 2

Assume that firm B sells products that become more desirable to its contributors as they become more widely adopted. For example, it may offer products that include a technology that will become a standard if widely adopted, or a new fashion that may or may not become widely popular. To encourage the early adoption of its products, the firm has chosen to establish CTCs [CTC's] for each product at its launch, and has defined equity award rules designed to award early adopters of the products. For example, the equity award rules may allocate equity to individual contributors within each CTC based on both the number of units the contributor buys and when they buy them, measured either in time, by cumulative units sold prior to their purchase, or some combination of both measures. To encourage early adopters, the equity award rule may specify the amount of equity to be awarded as a declining function of the date or order of purchase. The equity award rule may also specify the aggregate amount of equity to be awarded to each CTC as a dynamic function of the product's relative contribution to the firm's overall value, as measured, for example, by the percentage of the firm's overall sales or profits which it represents at each point in time.

Please amend the paragraph at page 29, lines 9-18, as follows:

For example, by structuring a DCEAS to include CTCs [CTC's] that differentiate between products or services that have a different impact on the value of the firm, the firm is able to provide its contributors with an incentive to purchase the products or services that are more valuable to the firm which it would not be able to offer if the CTC structure of the DCEAS did not differentiate between the products or services. Similarly, by structuring a DCEAS to include CTCs [CTC's] that differentiate between contributor or contributor relationship types that have a different impact on the value of the firm, the firm is able to provide contributors with an incentive to change the nature of their relationship with the firm to a form that is more valuable to the firm, such as high volume contributor or long term contract status.

Please amend the paragraph at page 30, lines 3-17, as follows:

Finally, the flexibility of the DCEAS allows the structure and composition of CTCs [CTC's] to be modified over time. For example, the types of contributor transactions included in a CTC may be modified over time to reflect changes in the firm's business or competitive environment, with a simple example being the launch or termination of particular products or services. As will be discussed in the sections on performance metrics and equity award rules below, the contributors of one or more CTCs may wish to impose restrictions on or have some form of control rights over the nature of the changes of this kind which may be made. In addition, new CTCs [CTC's] may be defined and added to a DCEAS over time. For example, a firm may wish to add new CTCs [CTC's] when it launches a new product line, enters a new market, or begins doing business under a new type of contributor relationship. While there is little reason for the contributors of the existing CTCs [CTC's] of a DCEAS to be concerned about the act of creating additional CTCs, [CTC's,] as will be discussed in the section on equity award rules below they may wish to impose restrictions on or have some from of control rights over the amount and type of equity awarded to such CTCs.

Please amend the paragraph at page 31, lines 3-14, as follows:

A firm may wish to award equity with different control rights to contributors that complete different types of transactions for a range of reasons. For example, the firm may

wish to grant greater control rights to contributors who are strategic partners, or who maintain long term contracts with the firm. Similarly, it may wish to grant greater control rights to contributors that purchase products or services about which it strongly values contributor input. Alternatively, the firm may wish to offer few or no control rights for equity awarded to CTCs [CTC's] that are likely to include contributors that have mutually competing or conflicting interests, or interests that are competing or conflicting with those of the firm. For example, the equity awarded to the CTCs of [example 1] Example 1 above may be structured to have few or no control rights since the contributors trading in the firm's market are likely to have mutually competing interests, and would also be likely to compromise the neutrality of the firm's market if able to exercise control over it.

Please amend the paragraphs beginning on page 67, line 8, through page 68, line 10, as follows:

It is important to note that defining the equity award as a percentage of the number of shares outstanding is necessary to yield many of these simple features. Note, for example, that an award rule specified in terms of an absolute number of shares would either result in the issuance of a declining percentage of new shares over time (as the number of shares outstanding increases) or would require a more complex specification of the actual (increasing) number of shares to be issued over time. These effects are illustrated in Figures [15 and 16] 15A-C and 16A-C. [Figure 15 shows] Figures 15A-C show how the percentage ownership of a CTC equity class would be allocated over the first ten periods of the life of the class under the assumption that the firm has three contributors over that period with the business volumes shown in the figure, and that the performance metric for the CTC is the dollar volume of business conducted with the firm. In the [figure] figures, two alternative equity allocation rules for the CTC equity class are shown. In the first, the equity award rule is 25% dilution each period. In the second, one share of CTC equity is awarded for each unit of volume. Since the CTC equity class has just been established, the number of shares outstanding is small and the two equity allocation rules result in roughly similar allocations of the class.

In [Figure 16] Figures 16A-C the same two equity allocation rules are shown. In [this] these figures, however, Contributor 3 does not enter until 50 periods after the establishment of the CTC. Since the number of CTC shares outstanding by that time is

large, under the one share of equity per unit of volume equity allocation rule Contributor 3 is allocated only a very small share of the ownership of the class. In contrast, since the percentage dilution equity allocation rule causes ownership of the class to be reallocated at a rate that is independent of the amount of time the class has been in existence, under this rule Contributor 3 takes ownership of the class at the same rate as in [Figure 15] Figures 15A-C. This characteristic of the percentage dilution allocation rule allows equity in the class to be reallocated at a constant rate over time through a mechanism that is easy to understand and simple to implement.

Please amend the paragraphs beginning on page 69, line 17, through page 70, line 2, as follows:

Impact of CTC Equity Allocation Rule on Ownership Structure of Other CTCs in a DCEAS

It is important to note that the process of dynamic reallocation of equity within a particular CTC equity class has no effect on the ownership shares of the shareholders of the other equity classes of the structure. For example, in the example above, the ownership structure of the remainder of the firm is completely unaffected by the dynamic allocation of the ownership of the CTC equity class in question. This allows the awards and incentives generated by the dynamic allocation process of the equity allocation rules of a DCEAS to be individually tailored to the requirements of the specific CTCs of the structure.

Please amend the paragraphs beginning on page 72, line 8, through page 73, line 13, as follows:

[Figure 18 illustrates] Figures 18A-C illustrate these effects by showing how quickly equity is allocated to and then reallocated away from a short term contributor of a CTC in which the other transactions of the CTC are completed by two long term contributors. In [the middle panel of] Figure [18] 18B, the firm is assumed to use a 10% percentage dilution rate to allocate equity in the equity class of the CTC. This relatively slow rate causes the short term contributor to take ownership of a relatively small amount of equity during its term as a contributor. In [the bottom panel of] Figure [18] 18C the firm is assumed to use a 50% percentage dilution rate. This relatively high rate causes the

short term contributor to take ownership of significantly more equity during its term as a contributor. However, the higher rate also causes the contributor's equity stake to be reallocated back to the long term contributors of the CTC more quickly after it stops doing business in the CTC.

As a second example of how changes in the percentage dilution rate can be tailored to a specific situation, consider how a firm might choose to establish the initial ownership of a CTC equity class of fixed size. Specifically, assume that the firm has decided to establish a CTC equity class representing ownership of 25% of the firm. To establish the initial ownership of the class, it selects the following process. First, it awards the initial ownership of the class to the contributors of the CTC during the period preceding the establishment of the class. Conceptually, this is analogous to a 100% rate of dilution during the first period of the existence of the class. This is desirable to the initial contributors of the CTC, since the amount of ownership they are awarded is large relative to the amount of business they have conducted with the firm. To compensate for the size of this initial award, the firm may choose a subsequent series of high but declining percentage dilution rates during the periods immediately following the establishment of the class. Doing so reduces the duration of the shares initially awarded in the equity class, thereby offsetting the benefit of the large percentage of ownership which the shares initially represent. The phase-in of the ownership of the class may then be completed by gradually reducing the percentage dilution rate used over time until the rate reaches the desired "steady-state" percentage dilution rate. [Figure 19 provides] Figures 19A-C provide a graphical representation of this approach.

Please amend the paragraphs beginning on page 75, line 18, through page 76, line 19, as follows:

To illustrate this with a simple example, assume that Firm A has relatively stable business volumes of approximately 100 units a year. Further assume that the firm has chosen to issue one share of CTC equity for each unit of its product which it sells. Under this rule, during the first year the rule is in effect its contributors will receive 100 shares of CTC equity. This award will make up 100% of the CTC equity class, and thus equate to an award of 1% of the equity class per unit purchased. At the end of the second year a second 100 shares will be awarded to the firm's contributors during that year, causing the

total number of shares in the class to increase to 200. As a result, the firm's contributors during the second year the rule is in effect will receive ownership of 50% of the equity class, or 0.5% of the class per unit purchased. Following similar logic, the percentage of the class awarded in year n will decrease to $100/n$ percent of the class, and the amount of ownership per unit purchased will decrease to $1/n$ percent of the class. These relationships are shown in [Figure 20] Figures 20A-B, which [shows] show the fraction of ownership awarded to new customers under an absolute award equity rule that awards a constant number of shares for each unit purchased. The [figure shows] figures show that as the number of periods the rule has been in place increases the fraction of the class awarded to new contributors quickly becomes inconsequential.

Specifically, the [figure shows] figures show that if the aggregate contributor contribution to the firm, as measured by the firm's performance metric or metrics, is constant over time, the proposed absolute equity award results in an equity allocation identical to the one that would result from a percentage dilution equity award rule under which the percentage dilution during period n is equal to $1/n$ times the percentage during the first period. When the aggregate contributor contribution to the firm fluctuates over time, a now unpredictable but similarly declining schedule of effective percentage dilution rates will result.

Please amend the paragraph at page 77, line 13, through page 78, line 2, as follows:

While the examples above are simplified in nature, they illustrate the principal challenge associated with using absolute equity awarded rules. As a result of these challenges, awarding an absolute amount of new equity rather than a percentage of new equity in a CTC equity class will in general substantially complicate the design, analysis and implementation of the CTC and the related DCEAS. The use of absolute equity award rules will be particularly complicated when the firm's future size, business activities and competitive position are uncertain, or if the desired performance metric or equity award rules are functions of such variables, since the number of shares outstanding in individual CTCs [CTC's] and the DCEAS as a whole are likely to be particularly complex to estimate under such circumstances. While it may be possible to address complications of this kind through a careful, conditional specification of the amount of equity to be awarded in each

period, in most cases the desired result can be achieved more easily and accurately using a percentage equity award rule.

Please amend the paragraph at page 78, lines 4-10, as follows:

As mentioned above, under certain circumstances it may be desirable to jointly specify the equity class size award rule and equity allocation rule of a CTC. This is most likely to be the case when the firm wishes to closely link the size of a CTC to the nature or level of activity within it. This is often the case for the initiation period of the equity class of a CTC, as well as for the equity classes of CTCs [CTC's] that grow and decline in response to the growth and decline of specific types of business activities, such as product lifecycles.

Please amend the paragraphs at page 79, lines 3-13, as follows:

Since under either specification, the size of the class grows as new shares are awarded to contributors that complete additional trades with the firm, reallocation of the percentage ownership of the class over time will occur at the same time and by the same mechanism by which the relative size of the class is being altered. [Figure 21 illustrates] Figures 21A-B illustrate this combined implementation of what would have been classified above as the equity class size and equity allocation rule of the proposed equity award rule. [Figure 21 shows] Figures 21A-B show an example of joint equity class size award and equity allocation rules. The firm is assumed to have 5 million shares outstanding when establishment of class is initiated.

Specifically, the [figure shows] figures show how the percentage ownership of the firm evolves as the firm completes its first \$300,000,000 of trades under the assumption that the firm had 5 million other shares outstanding prior to the creation of the CTC equity class.

Please amend the paragraph beginning on page 80, line 15, through page 81, line 12, as follows:

This is particularly important when the duration of the contribution of the relevant contributor transaction types is limited. For example, consider the two CTCs of [example 1] Example 1 above, which are designed to compensate contributors that provide on-going

trading volume of the two products the firm trades. Since the firm requires significant trading activity at each point in time to maintain its viability as a marketplace, contributor trading volume at each point in time makes a valuable contribution to the firm. However, the firm clearly cannot continue to award an incremental fraction of its ownership to the contributors that provide such volume indefinitely, since this would eventually consume the entire ownership of the firm. Of equal importance, the contribution to the firm made by trading volume at any given point in time is quite temporary, since it provides liquidity in the firm's market at that time only. As a result, it would also be inappropriate to award ownership in the firm with a significant duration for the provision of liquidity in the firm's market at any particular point in time, since this would generate a poor match between the characteristics of a contributor's contribution to the firm and the characteristics of the equity it is awarded for them. Thus to be both viable in the long term and to effectively match the characteristics of contributor contributions to the value of the firm to those of the equity they are awarded, an equity award rule for a CTC in which individual contributor transactions contribute to the value of the firm over a relatively short horizon, but the sequence of such transactions contribute to the firm on an on-going basis, equity with a relatively limited duration must be awarded on an on-going basis. The ability to do so is a novel benefit of the invention disclosed here.

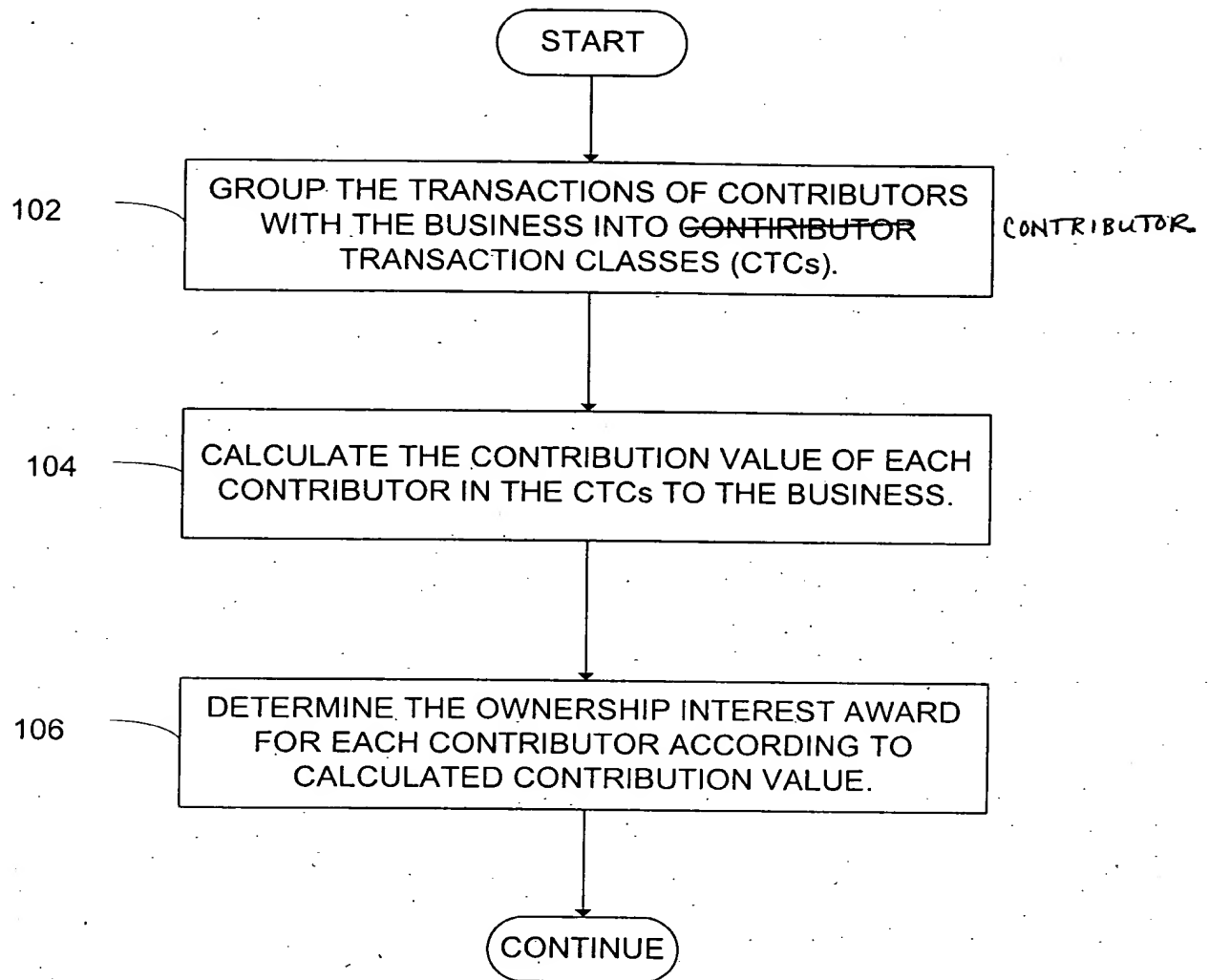


FIG. 1

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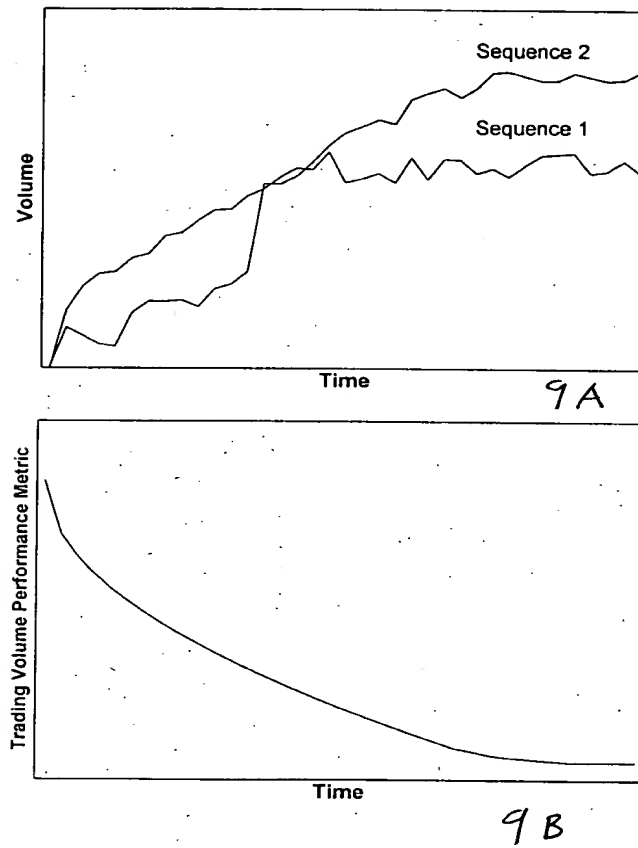


FIG. 9

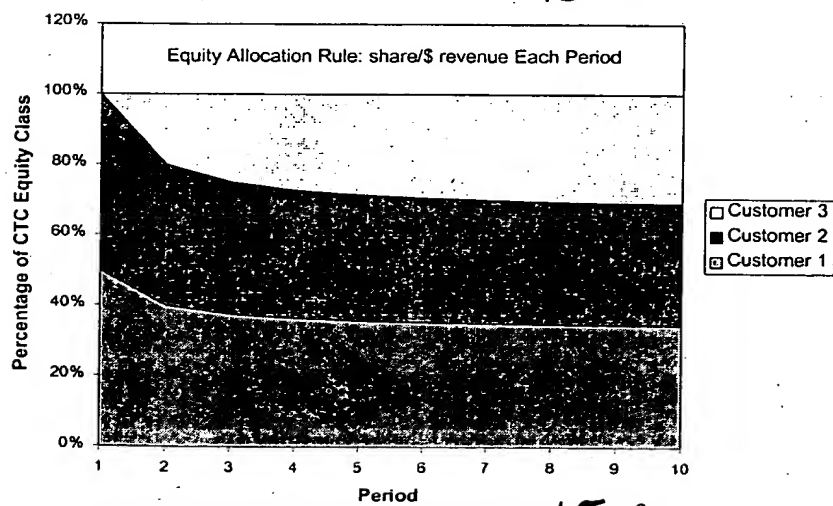
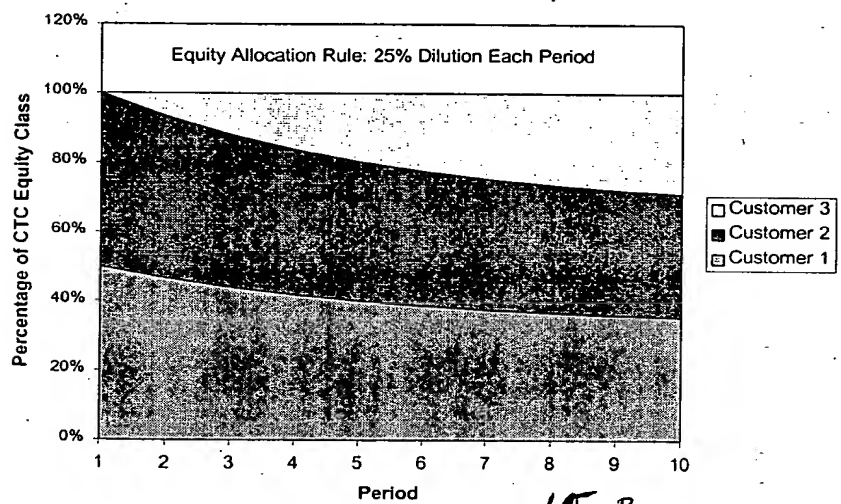
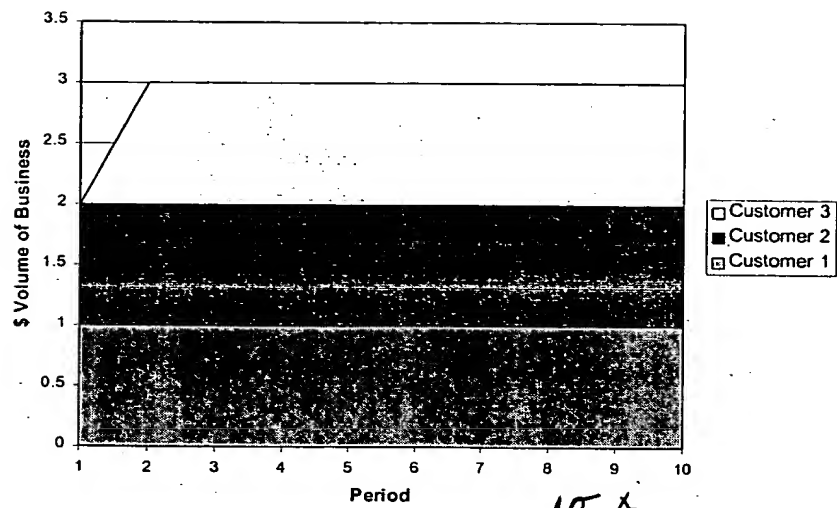
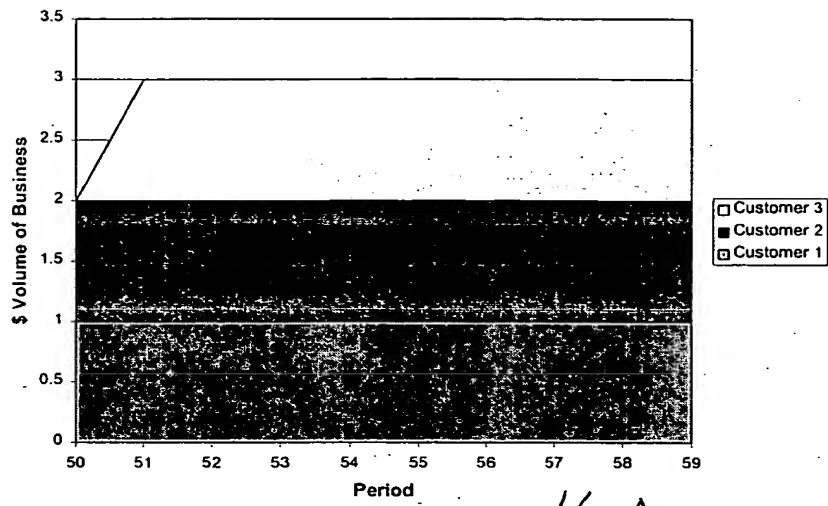
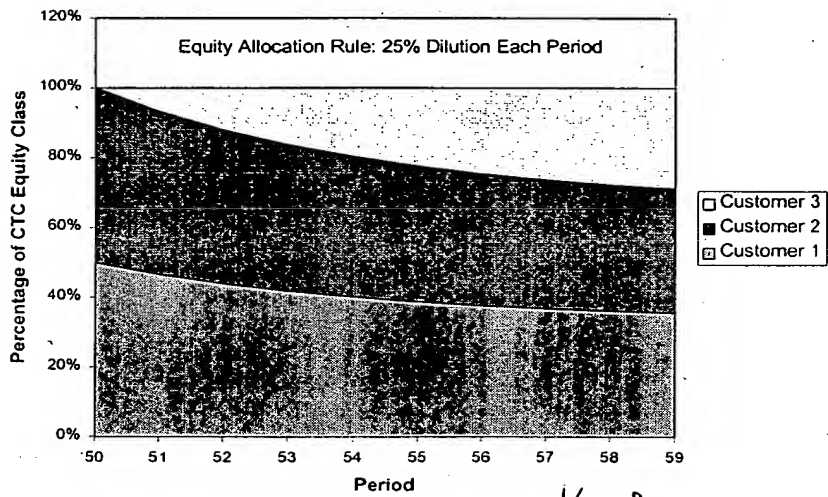


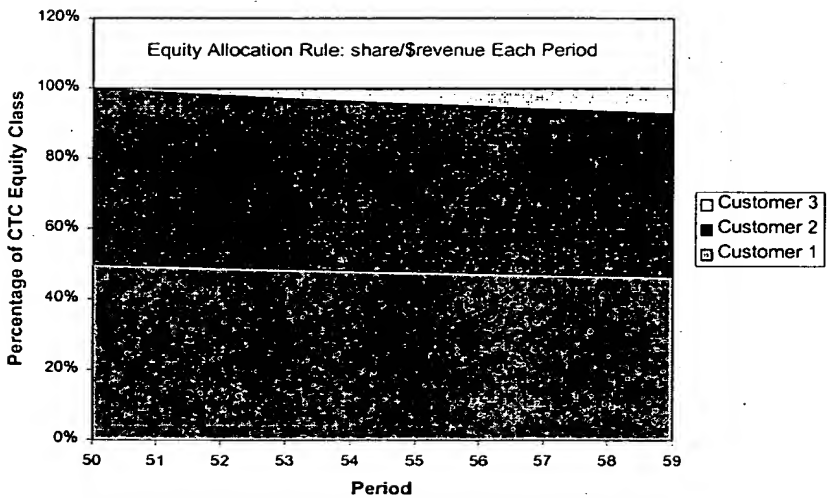
FIG. 15



16 A

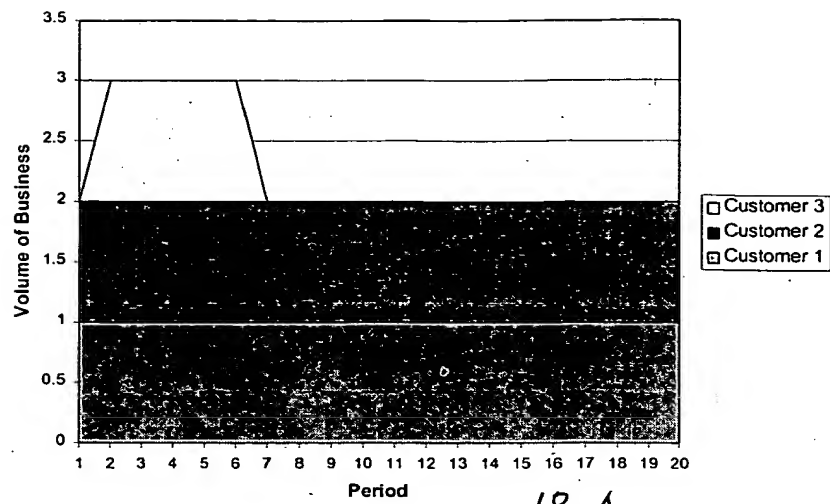


16 B

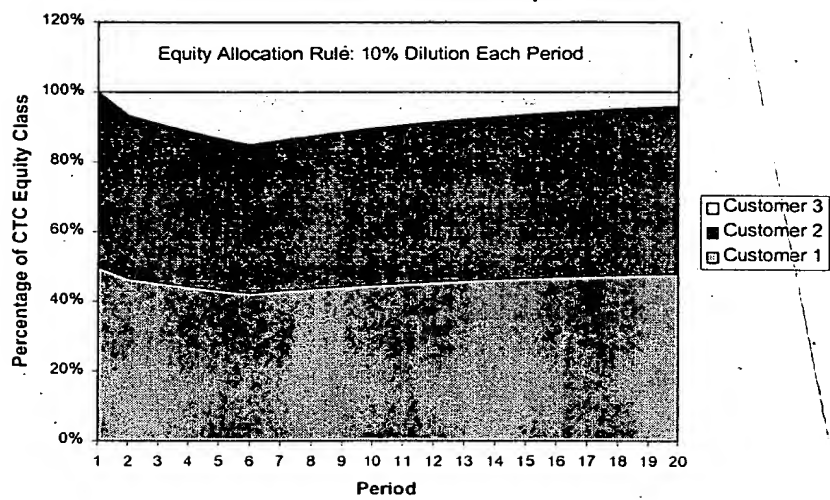


16 C

FIG. 16



18 A



18 B

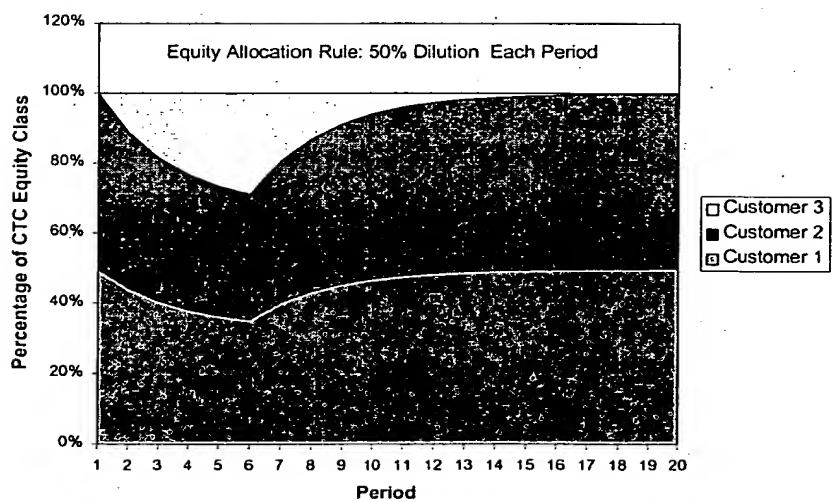
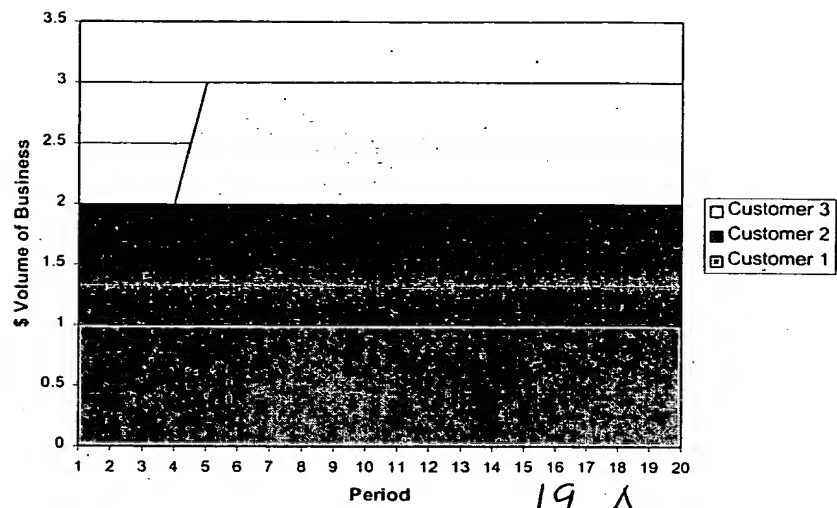
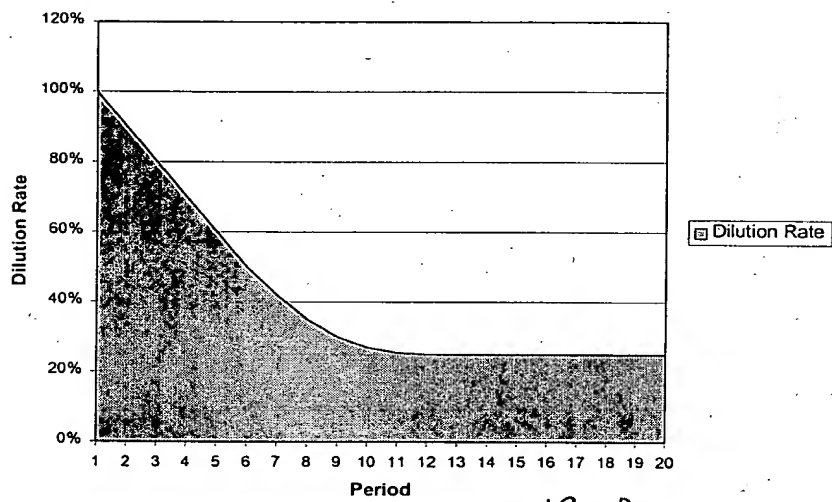


FIG. 18 18 C

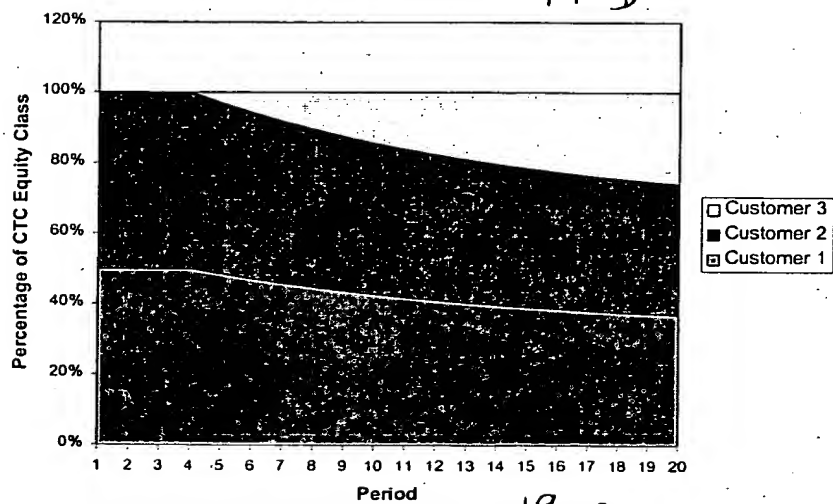
19/21



19 A



19 B



19 C

FIG. 19

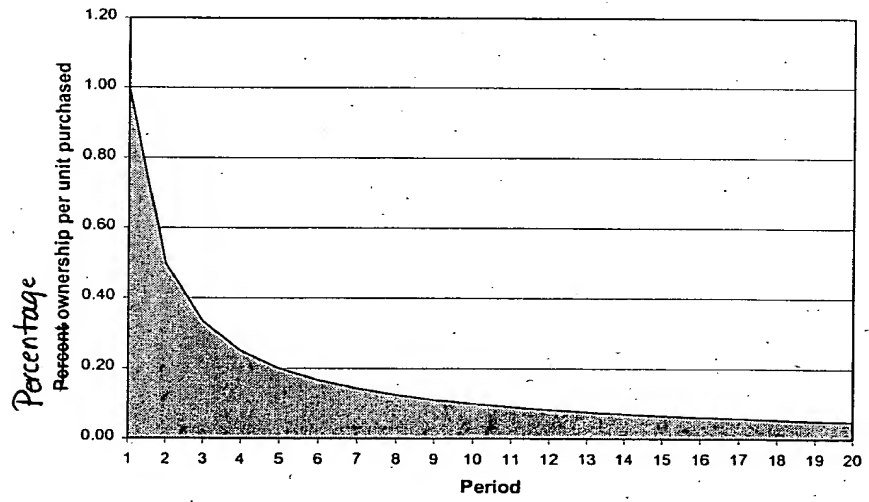
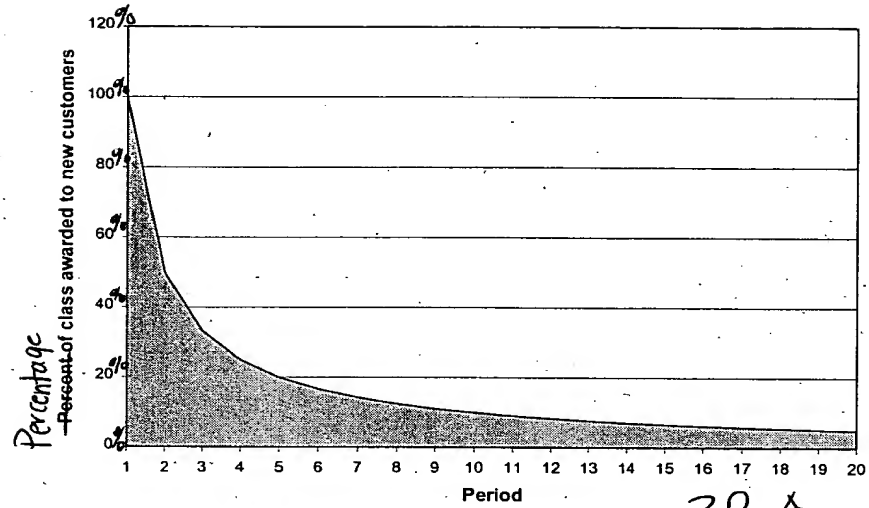
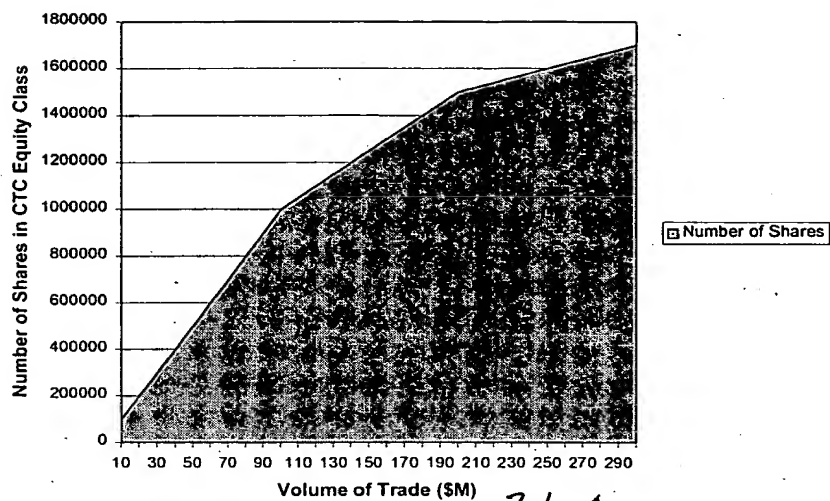
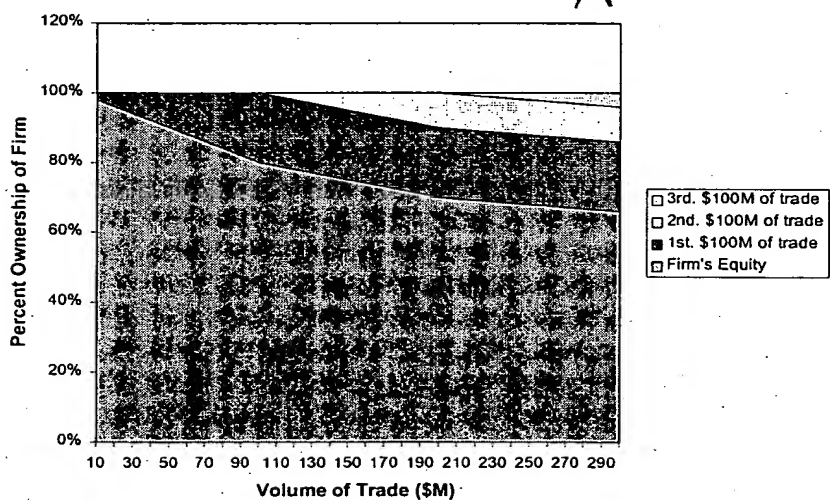


FIG. 20



21 A



21 B

FIG. 21